

REMARKS

The outstanding Office Action set for rejections in which all of the claims were rejected under 35 U.S.C. § 103.

Summarizing the Amendment, claim 13 has been added to more distinctly claim and particularly point out the subject matter which Applicant regards as the invention. Claims 1–13 remain in the application.

The rejections are traversed hereunder. Reconsideration of the subject application as amended and in view of the following comments is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1 and 4–10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,405,975 to Sankrithi et al. in view of U.S. Patent No. 6,542,181 to Houska et al.

Claims 2, 3, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,405,975 to Sankrithi et al. in view of U.S. Patent No. 6,542,181 to Houska et al. and further in view of U.S. Patent No. 5,689,734 to Bauer et al.

Applicant traverses these rejections.

Requirements for Obviousness

The Federal Circuit stated in *In re Oeticker* [977 F.2d 1443, 24 USPQ 2d 1443 (Fed. Cir. 1992)], “[i]f examination at the initial stage does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent.” The CCPA interpreted prima facie obviousness in *In re Lintner* [458 F.2d 1013, 173 USPQ 560, 562 (C.C.P.A. 1972)] as follows:

In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed substitution, combination or other modification.

In *In re Rinehart* [531 F.2d 1048, 189 USPQ 143 147 (C.C.P.A. 1976)], the CCPA added that the prima facie case requires that the teachings of the reference “appear to have suggested the *claimed subject matter*.” In view of these decisions, a prima facie case of obviousness is established when the Patent Office provides:

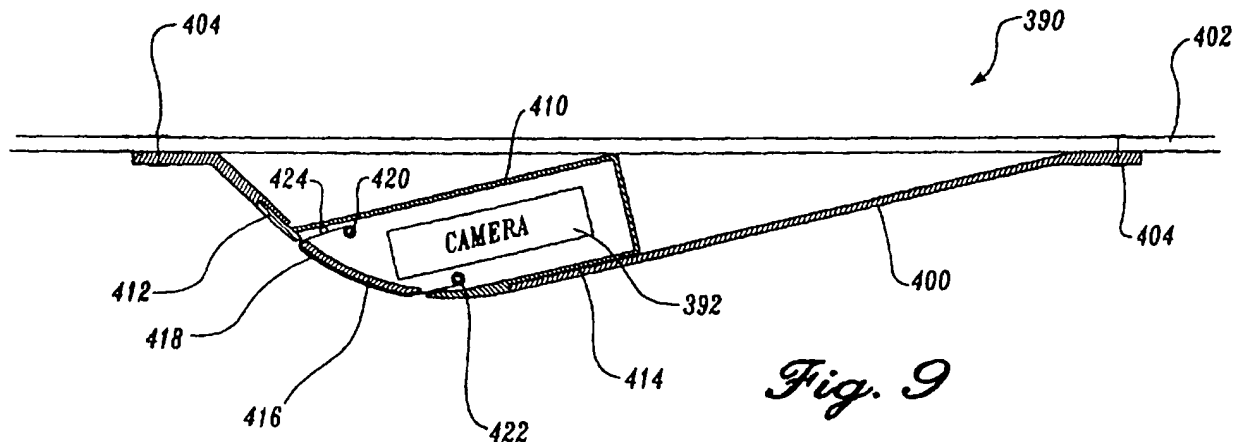
- a) one or more references
- b) that were available to the inventor and
- c) that teach
- d) a suggestion to combine or modify the references,
- e) the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.

If any one of these elements is not present, the prima facie case of obviousness is not established. In the instant case, it is respectfully submitted that the Sankrithi et al., the Houska et al., and Bauer et al. patents fail to meet these requirements.

The Cited References

U.S. Patent No. 6,405,975 to Sankrithi et al.

U.S. Patent No. 6,405,975 to Sankrithi et al. discloses an external mount of a camera for an airplane. As shown in Sankrithi et al.'s FIG. 9 below, a mounting structure 390 for a camera



392 is positioned on the underside of an airplane. The mounting structure 390 includes a frame 400 attached to the fuselage skin 402. A housing 410 is attached to the frame 400 with adhesive layers 412 and 414. The camera 392 is pointed toward a lens 416 that is covered by a transparent film 418 transported between retaining reels 420 and 422. A cleaner element 424 is located between the inner wall of the camera housing 410 and the transparent film 418.

The Office Action concedes that Sankrithi et al. fail to teach or suggest filler disposed in a space within the housing 410 to seal the camera 392.

U.S. Patent No. 6,542,181 to Houska et al.

U.S. Patent No. 6,542,181 to Houska et al. shows an aerial video camera system having an enclosure system 42 with a foam sleeve 110 to dampen vibrations (see column 5, lines 50-55, and FIGS. 8, 9, 10a, and 10b).

As discussed below, like the Sankrithi et al. patent, the Houska et al. patent fails to teach or suggest a filler for surrounding a camera in a receptacle. In contrast, the foam sleeve 110 of the Houska et al. patent is analogous to packing material, such as foam packing for a computer monitor in a shipping box.

U.S. Patent No. 5,689,734 to Bauer et al.

U.S. Patent No. 5,689,734 to Bauer et al. shows a pressurized camera system. The Office Action states that Bauer et al. "teaches that it is common practice to seal a camera with a filler or epoxy to prevent the fouling of the camera internals." The Office Action cites column 1, lines 32-35, of the Bauer et al. patent in support of this assertion, which citation reads:

A common prior art technique to prevent fouling of camera internals is to use a sealant, such as epoxy, around joints and lens apertures to prevent ingress of contaminants into the interior of the camera.

As discussed below, like the Sankrithi et al. patent, the Bauer et al. patent fails to teach or suggest a filler for holding a camera in a receptacle.

The Present Invention

Claim 1 recites a camera system for mounting to an aircraft. The camera system includes:

- a housing including ... a receptacle... having ... an inner surface;

- a camera disposed within the receptacle ..., a space being defined between the camera and the inner surface of the receptacle;
and
- a filler disposed in the space to seal the camera within the receptacle, such that by filling the space, the filler provides the camera with a surrounding vibration-dampening layer of filler.

Claims 2-6 depend from claim 1 and respectively recite additional features of the camera system.

Claim 7 as amended sets forth a camera system for external mounting to an aircraft. The camera system includes:

a housing including ... a receptacle ... having an opening;

a camera disposed within the receptacle ... ;
the camera being held within the receptacle and insulated from
vibration by a surrounding vibration-dampening layer of
filler.

Claims 8–12 depend from claim 1 and respectively recite additional features of the camera system.

Discussion

Independent claims 1 and 7 both recite that a camera is held within a receptacle by a vibration-dampening layer of filler.

As admitted by the Patent Office, the Sankrithi et al. patent fails to teach or suggest filler for holding a camera within a housing.

The Patent Office, therefore, cites the Houska et al. patent as a reference that shows a foam sleeve 110. The Patent Office incorrectly characterizes the foam sleeve 110 of the Houska et al. patent as a “vibration dampening filler.” Rather, like foam packing for, e.g., computers and monitors in shipping boxes, the foam sleeve of Houska et al. does not provide a “surrounding vibration-dampening layer of filler” as recited in claims 1 and 7. Like packaging foam, the Houska et al. foam sleeve may protect the camera, but the foam sleeve does not do so as recited in claims 1 and 7 in which the space is completely filled with a filler.

Regarding the teachings of the Bauer et al. patent, Bauer et al. state that the use of a sealant such as epoxy around the joints and lens apertures of a camera to prevent the ingress of contaminants into the interior of the camera, is known. Indeed, the system of the present invention uses an adhesive compound (180) to attach the camera (80) to an interior surface of a window (70) (see page 5, lines 3 and 4, and FIG. 4 of the present application).

However, the adhesive compound that Bauer et al. are discussing is NOT the same type of element that is recited in claims 1 and 7. Rather, the filler (210) (see FIG. 4), not the adhesive compound (180) is what is recited in the claims 1 and 7. The filler of claims 1 and 7 provides a vibration-dampening layer for the camera in the receptacle (see page 2, lines 7 and 8, and page 2, line 17, of the present application). Clearly, the Bauer et al. fail to teach or suggest the filler of claims 2, 3, 10, and 12.

Accordingly, any combination of the Sankrithi et al., the Houska et al., and Bauer et al. patents fails to teach a suggestion of how to combine or modify the references, the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art. Accordingly, it is respectfully submitted that the camera systems as set forth in claim 1 and 7 would not have been obvious to one having ordinary skill in the art at the time the invention was made in view of the Sankrithi et al. and Houska et al. patents, either alone or in combination, and that claims 1 and 7, as well as claims 4-6 and 8-10 respectively depending there from, are patentable.

In addition, it is respectfully submitted that the camera systems as set forth in claim 2, 3, 11, and 12 would not have been obvious to one having ordinary skill in the art at the time the invention was made in view of the Sankrithi et al., Houska et al., and Bauer et al. patents, either alone or in combination, and that claims 2, 3, 11, and 12 are patentable.

NEW CLAIMS

New claim 13 has been added to the application. Claim 13 recites a camera system in which a filler including an adhesive compound is disposed in the space such that the space is completely filled with the filler to seal the camera within the receptacle and such that the filler provides the camera with a surrounding vibration-dampening layer of filler. For reasons analogous to those provided above, it is respectfully submitted that new claim 13 is patentable and in condition for allowance.

CLOSING REMARKS

It is respectfully submitted that the subject application, including claims 1-13, is in condition for allowance. Confirmation of the allowance is respectfully requested.

The Examiner is invited to contact the undersigned if he believes there are any issues which remain, preventing the allowance of the application.

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Respectfully submitted



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